## **ABSTRACT**

The ion exchange capacity of resin in an ion exchange column can be increased by applying a magnetic field to the resin while the ion exchange procedure takes place. The magnetic field may be generated in a variety of ways. Apparatus for practicing the invention may include permanent magnets, either stationary or movable, or an electromagnet or electromagnets arranged with respect to an ion exchange column to create a magnetic field in the resin in the column. When using an electromagnet, magnetic material, such as a cast iron rod or bar, is placed in the resin bed to direct and concentrate the magnetic field in the resin.